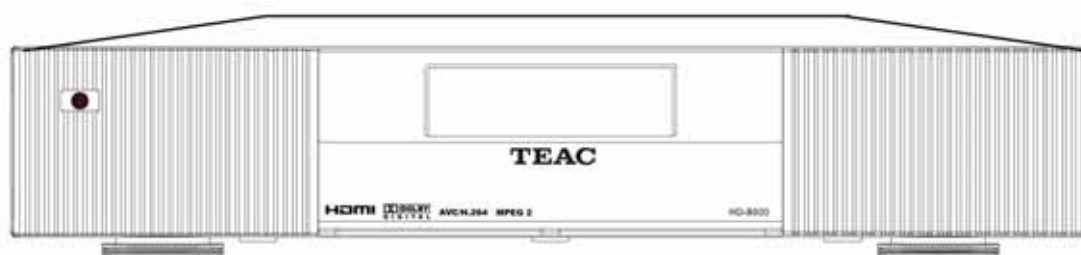


# TEAC

# HD-B500

DMB-T HD DIGITAL TERRESTRIAL RECEIVER

OWNER'S MANUAL



**AVC/H.264 MPEG 2 HDMI DOLBY DIGITAL**

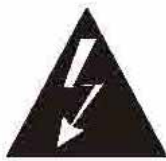
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## **IMPORTANT SAFETY INSTRUCTIONS**



TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol indicates "dangerous voltage" inside the product that presents a risk of electric shock or personal injury.



This symbol indicates important instructions accompanying the product.

"Dolby" and the double-D symbol are trademarks of Dolby Laboratories.  
Manufactured under license from Dolby Laboratories.

# 1 INTRODUCTION

This owner's manual is intended to describe the procedures for operating the TEAC DMB-T HD DIGITAL Terrestrial Receiver. This product is a high performance Digital TV Terrestrial Receiver. It offers users with all free-to-air DMB-T Digital TV programmes being broadcasted in Hong Kong.

## Icons

In this manual, the following icons are used :



This icon means that a remote control button is used.



This icon means that special attention is required.




This icon means that the user should pay attention to the procedures described.

## 2 MAIN FEATURES

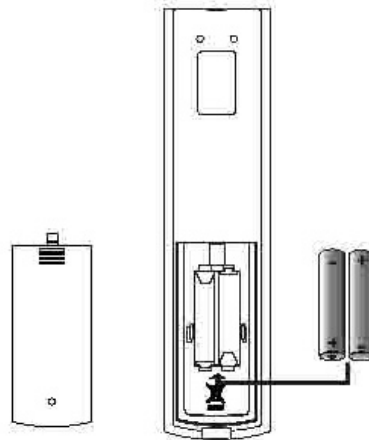
- Support MPEG-2/MPEG-4 Part 10 (H.264)
- Fully compliant with Hong Kong DMB-T digital terrestrial TV standard
- Easy to operate user interface
- Automatic detection of changes in TV channels configurations
- Easy to use channels and programmes management user interface
- English and Traditional Chinese OSD
- Support Electronic Programme Guide (EPG), Teletext or other TV information
- Favourite TV channels management system
- Display of information on the current and next TV programmes
- Support different video and output interfaces
- USB compliant port
- RS-232 Port
- e-SATA Port (for connection with our other designated products in the future)
- Parental control and censorship
- HDMI connection for output of High Definition Digital Images
- Support upgrade through Over The Air

### 3 THE REMOTE CONTROL

Photograph	Key	Function
	MUTE	Disable Audio output
	STANDBY	Switch to stand-by
	0.....9	0-9 numeral buttons, for input of numbers or for selecting a TV channel
	LIST	Open current channel programme list / switch between favorites lists / wake up receiver from stand-by
	SWAP	Recall last channel while watching digital TV or listening to radio / wake up the receiver from stand-by
	RED	Function key
	GREEN	Function key
	YELLOW	Function key
	BLUE	Display Signal strength and Signal quality after pressing the <INFO> button
	MENU	Display menu, press again to exit current menu
	EXIT	Back to previous menu without saving
	UP/DOWN	Move selection up/down within menus and lists
	LEFT/RIGHT	While watching a channel, the LEFT/RIGHT buttons increases or decreases the audio output volume. Within a menu, press the LEFT button to return to previous menu and the RIGHT button to enter a sub-menu.
	OK	Call up a programme list for the current channel while watching digital/TV or listening to the radio. In a menu, this button serves to confirm a selection.
	PGUP/PGDW	Page up/down in lists
	VOL+/VOL-	Increase or decrease the audio output volume
	CH+/CH-	Select next/previous channel / wake up the receiver from stand-by
	V FORMAT	Switch between PAL and NTSC video formats
	A. Ratio	Set video output aspect ratio to 4:3 or 16:9
	SCALE	Switch between display modes Letter Box, Pans can and FULL
	TELETEXT	TELETEXT function key
	SUBTITLE	Switch between different subtitles
	TV/RADIO	Switch between TV and RADIO (a reserved feature)
	RES.	Switch video output resolutions between 576P, 720P and 1080I.
	Audio	Switch between Left channel audio output, Right channel audio output and Stereo audio output
	LANGUAGE	Change audio language output
	EPG	Electronic Program Guide

## BATTERY INSTALLATION

Insert the batteries while observing the correct (+) and (-) polarities as illustrated below.



### About the batteries

- If the remote control unit fails to work even when it is operated near the LCD TV/monitor, please replace the batteries.
- Use size UM-4(AAA) batteries.

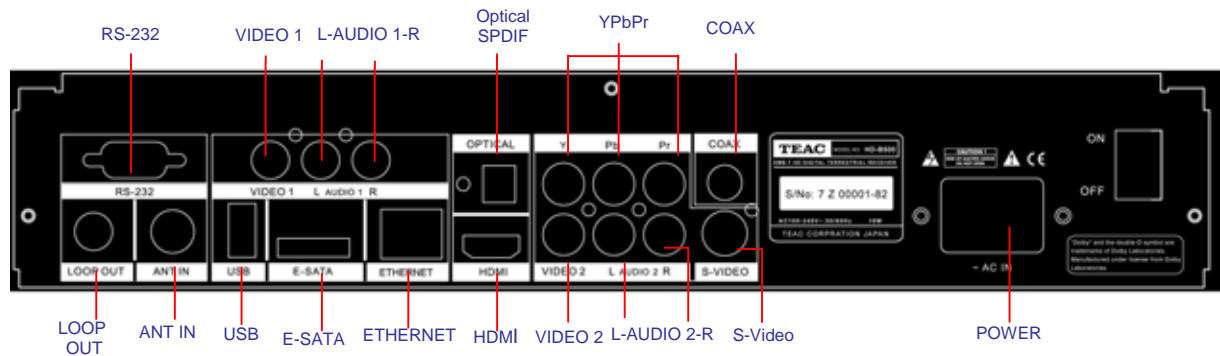
### Notes:

- Do not use rechargeable (Ni-Cd) batteries.
- Do not attempt to recharge, short circuit, disassemble, heat or throw the batteries into the fire.
- Do not drop, step on or cause any impact to the remote control unit. This may damage it, resulting malfunction.
- Do not mix old and new batteries.
- If the remote control unit is not going to be used for a long time, remove the batteries.

### Caution

Keep batteries out of children's reach. If batteries are swallowed, contact a physician immediately.

## 4 FRONT AND REAR PANEL



### Rear Panel

ANT IN	Digital Terrestrial TV Broadcast signal input
Loop OUT	Output of Digital Terrestrial TV Broadcast signal
Video 1 & Video 2	Composite video signal output
Audio	Analog Audio output
Optical	Digital audio output
YPbPr	High Definition Component video output
HDMI	Digital HDTV video output with HDCP. HDMI version 1.1
RS-232	RS-232 communication port for firmware upgrade
USB	USB1.1 Port for firmware upgrade
Coaxial	Coaxial Digital audio output
Ethernet	Ethernet port for Interactive TV (future upgrade required)
e-SATA	Extend SATA interface for connection with external hard disk for video recording (future upgrade required)
POWER	IEC Power Connector ~AC100-240V

### 4.1 FRONT PANEL

Please press the "TEAC" logo gently then the front door open for various function keys. The red LED is a power indicator and the green LED is a signal indication.



User can access those function keys as follow: MENU, OK, EXIT, CH+/UP, CH-/DOWN, VOL+/LEFT, VOL-/RIGHT



## 5 FIRST INSTALL



Note: A Digital TV Antenna is supplied with the TEAC DMB-T HD DIGITAL Terrestrial Receiver. The Antenna should be used where the user is within an area with Digital Terrestrial TV coverage but the premises in which the user intends to use the Receiver has not yet been upgraded with Digital Terrestrial TV receiving capability. (Please refer to "Installation" for details.) *If you do not know whether the building concerned has been upgraded with Digital Terrestrial TV receiving capability, you may make relevant enquiries with your building management.*

Please connect the Receiver to your television set (HDMI cable recommended) and that the antenna is connected to the "ANT IN" input connector on the Receiver. Connect one end of the IEC Power Cable to the Receiver and the other end to power supply. Switch on your TV set and the Receiver.



When the welcome screen is displayed, please select the preferred language (English or traditional Chinese) for the user interface and the country where the Receiver is used (Hong Kong, China). Highlight "Set-up" on the Menu using the 'UP/DOWN Arrow' buttons and press the "RIGHT Arrow" button to confirm your selection.



*If you decide to use the Flat Panel Antenna, please turn 'On' the Antenna Power.*

The Receiver will start to search for available channels and a few minutes are required to complete this operation. When a TV channel is detected, its corresponding Signal strength and Signal quality are displayed.

If channel scanning is completed successfully, a list of channels found during the scanning process is displayed on screen.



If no channel is found during the channel scanning process, the user may adjust antenna position to obtain optimal TV signal. To do this, the user can select an appropriate RF Channel used by the broadcast station (for example, UHF 22, 35 or 37 for Hong Kong) using the manual channel scanning interface, and the corresponding signal Strength, signal quality and the name of the channel will be displayed. The user may re-scan for TV channels.



#### Hong Kong Digital Terrestrial Broadcast TV Stations and Channels

(In early 2008, only one digital TV broadcast station located in Temple Hill District will be in operation. For other digital TV broadcast stations, please refer to future announcements issued by The Office of the Telecommunication Authority of Hong Kong.)

Broadcast Station	Channel 22	Channel 35	Channel 37
Temple Hill	Yes	Yes	Yes



## 6 BASIC USE

### 6.1 TV CHANNEL AND PROGRAMME INFORMATION

A semi-transparent information banner is displayed at the bottom of the screen when:



- the TV channel is changed (displayed for 5 seconds)
- the INFO button is pressed

Information presented in the banner includes:

- Channel name and channel number
- you may press the BLUE button on the remote control unit to check the signal strength and signal quality of the current TV channel
- Information on the current and the next TV programmes
- Time elapsed and time remaining (indicated by bar-graph) for the current TV programme and the scheduled time for the next TV programme



If the information banner is displayed permanently, press the EXIT button on the remote to hide it.

### 6.2 DETAILED INFORMATION ABOUT THE CURRENT PROGRAMME



To get detailed programme information, press the INFO button when the information banner is shown.



Information shown includes:

- The name of the current TV programme and its related time information
- Nature of the current TV programme and its duration
- Description of the current TV programme. This may contain several pages. Use PGUP and PGDW buttons to scroll through pages.



Detailed information about the next TV programme can be obtained by pressing the INFO button again.

Note: To obtain information on the current TV programme, press the INFO button on the remote control unit once. To obtain information on the next TV programme, press the INFO button twice.



When detailed information concerning the next programme is displayed, pressing the INFO button again will hide the information banner and detailed information.

## 6.3 TV CHANNEL AND PROGRAMME LIST



A semi-transparent page showing brief TV channel and programme information is displayed when the LIST button is pressed.

This page contains the following information:

- All TV channel names and numbers
- Brief description of current and next TV programmes
- Time information on the current and next TV programmes



Press the EXIT button to hide the brief TV channel and programme information page.



In the brief TV channel and programme information page, the user can obtain the further information on the current TV programme by pressing the RIGHT button or the INFO button.

## 6.4 TV CHANNEL LIST



While watching a TV programme, press the OK button on the remote control unit to display a semi-transparent banner showing a list of available TV channels stored in the Receiver. View a TV channel by highlighting the name of a TV channel on the banner and press the OK button.



Press the EXIT button on the remote control unit to hide the TV Channel banner.



## 6.5 ELECTRONIC PROGRAMME GUIDE (EPG)



While watching a TV programme or listening to a radio programme, press the EPG button on the remote control unit to open the Electronic Programme Guide for the current TV channel. Information on the current and next TV or radio programmes including their names and schedule are displayed.

Press INFO button to display extended information for the highlighted programme. Extended information includes the name of the programme, its nature, a brief description of the programme, and its time schedule. Where information consists of several pages, you can press the PGUP/PGDW buttons on the remote control unit to scroll through pages.

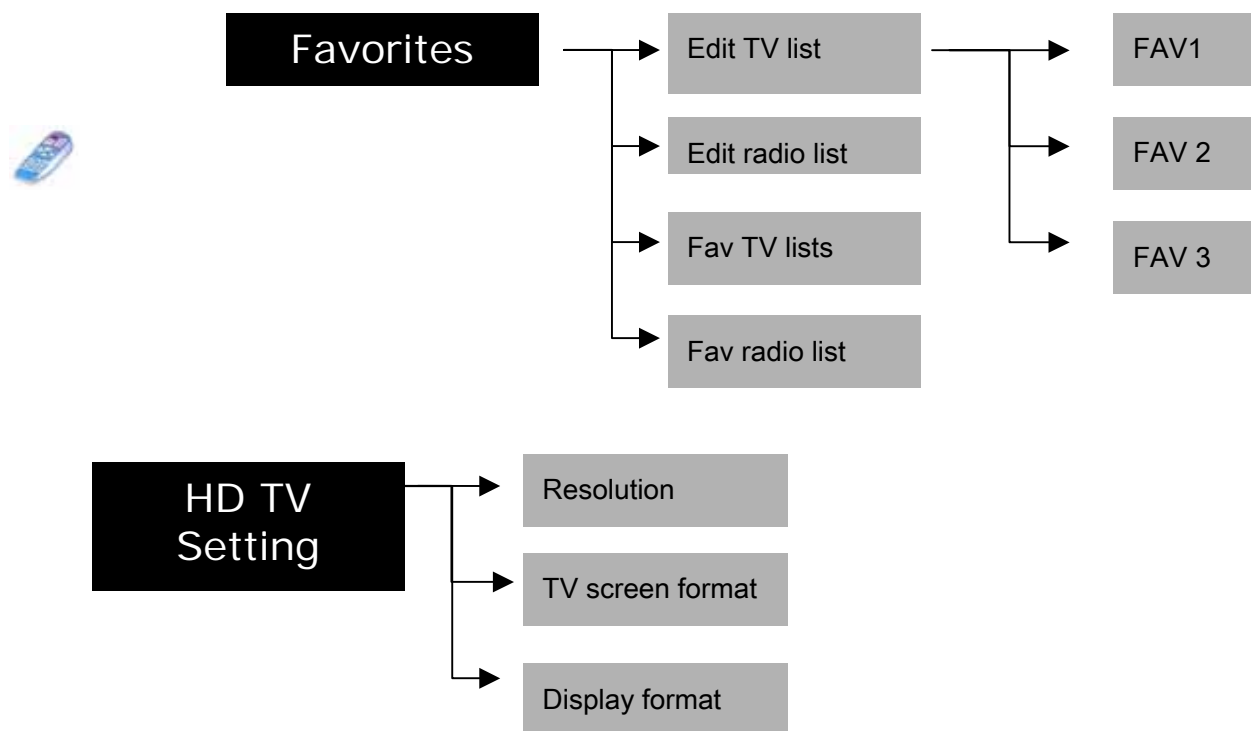


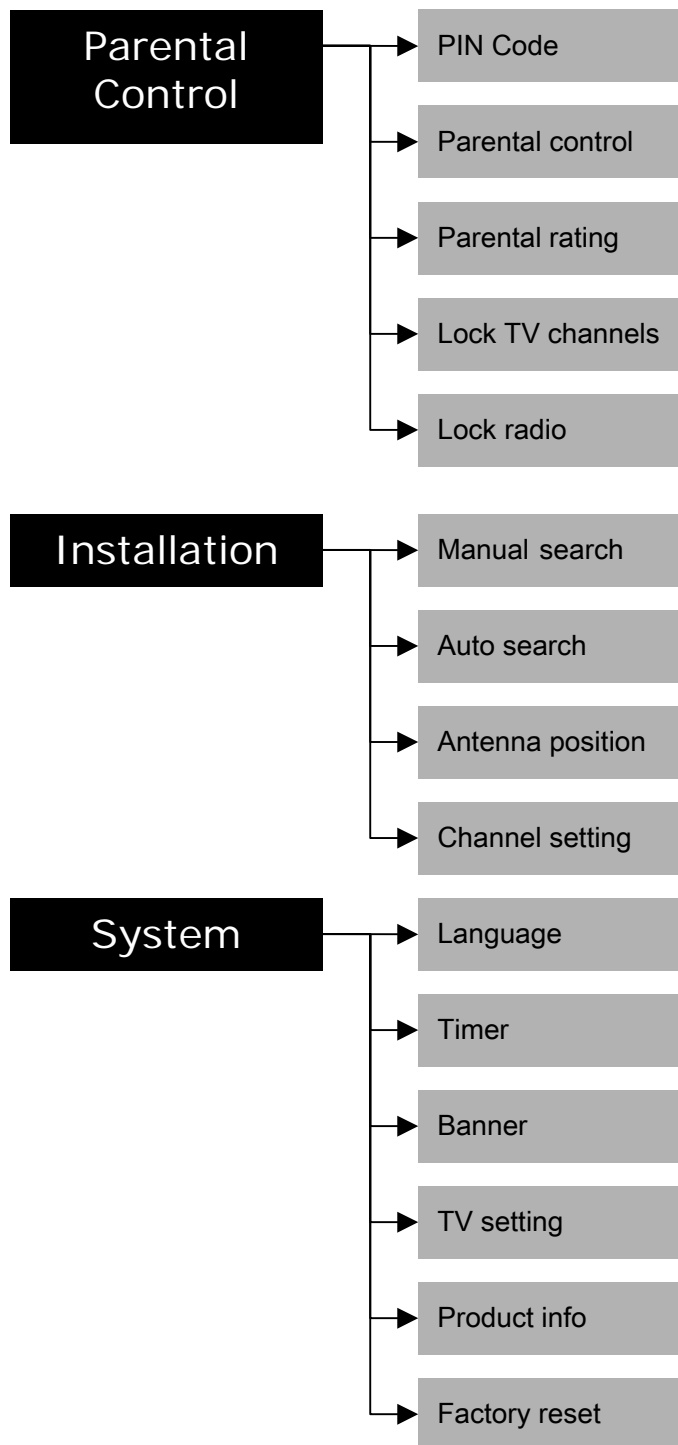
Press the INFO button again to quit extended information.

In the EPG menu, press the UP/DOWN buttons to highlight the next or previous TV channels for the corresponding programme information. Press the LEFT/RIGHT buttons to view the previous or next day programme information. The EPG information will be updated automatically.

## 7 MENU INFORMATION

### 7.1 MENU





Press the MENU button on the remote control unit TO enter the Main Menu screen. The following information is displayed:

- Favourites
- HDTV Settings
- Parental control
- Installation
- System Setting



## 7.2 FAVOURITES

To manage lists of favourite channels, use the MENU button and select **Favourites** by pressing the RIGHT button on the remote control unit to enter its sub-menu.



The first option on the menu, **Edit TV lists**, allows managing your Favourite TV lists, i.e. adding or removing TV channels in your Favourite TV lists.



To edit your Favourites TV lists, first select the list to manage. In the menu, select the choice **Edit TV lists**, then press RIGHT button on the remote control unit. The current list name, "FAV 1", is highlighted in red. To select another Favourite TV list, use the UP/DOWN buttons. Once the desired Favourite TV list is selected, you can press the RIGHT or OK button to enter in the sub-menu for the chosen list.





**Channels** sub-menu allows adding and removing channels in a particular Favourite TV list: press RIGHT button to edit the list. Use UP/DOWN buttons and PGUP/PGDW buttons to select the desired TV channel (its name is highlighted in red), then press "OK". A small "heart" icon appears next to the name of the channel. Once completed, you can press LEFT button to confirm your choice or press EXIT button to cancel.



### 7.3 HDTV SETTING



To enter the HDTV Setting menu, press the MENU button on the remote control unit, then press the DOWN button twice, followed by the RIGHT button. HDTV Setting menu allows the user to set miscellaneous parameters for audio and video outputs. Press the RIGHT button on the remote control unit to enter the sub-menu. Press the UP/DOWN button to highlight a selection and press the OK button to confirm selection. To return to previous menu, press the LEFT button or the EXIT button.



### 7.3.1 Resolution

If a High Definition TV set is connected to the HDMI output of the Set Top Box, the resolution can be adjusted to match the TV Set capabilities.

Select **Resolution**, press “right arrow” button and select the desired choice with the “up arrow” and “down arrow” buttons. The possible choices are:

- 1080I
- 720P
- 576P
- AUTO

The default setting is 576P.

Validate your choice by pressing the OK or LEFT button on the remote control unit. Cancel the choice by pressing the EXIT button.

### 7.3.2 TV Screen format

This allows setting the screen aspect ratio. Select **TV Screen format**, press the RIGHT button and select the desired choice with the UP/DOWN buttons. Validate your choice by pressing the OK or LEFT button. Cancel selection by pressing the EXIT button. The possible choices are:

- 4:3
- 16:9

The factory default setting is 4:3.



### 7.3.3 Display format

This allows setting the display format. Select **Display format**, press the RIGHT button on the remote control unit and select the desired choice with the UP/DOWN buttons. Validate your choice by pressing the OK or LEFT button. Cancel your selection by pressing the EXIT button. The possible choices are "Letter Box", "PANSCAN" and "Full Screen".



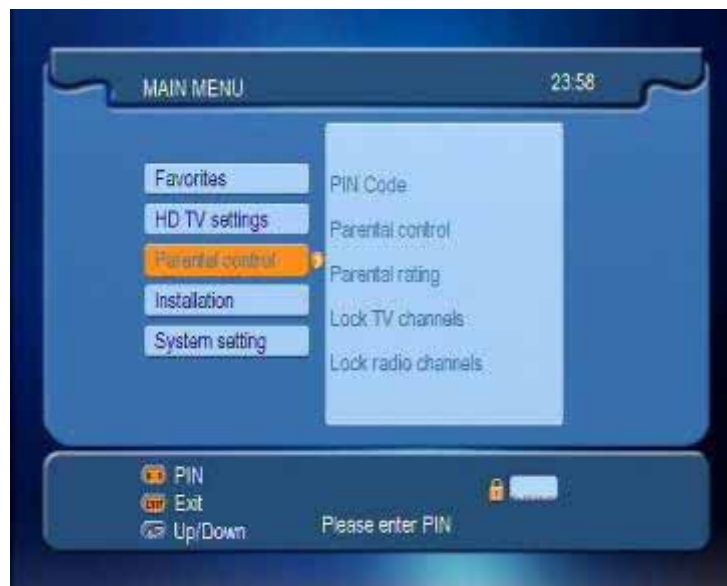
## 7.4 PARENTAL CONTROL



To enter the **Parental Control** menu, press the MENU button on the remote control unit, then press the DOWN button twice, followed by the RIGHT button. To enter this menu, a PIN-code is required. The default PIN-code is 0000 and can be changed after entering

the Parental Control sub-menu. If a new PIN-code is set by the user, please remember this new PIN-code.

The Receiver has a parental control system with a PIN-code protection. It allows activation or deactivation of the parental control function, set parental rating (allow viewing of TV programmes suitable for a certain age), and lock (prevent viewing) TV channels.



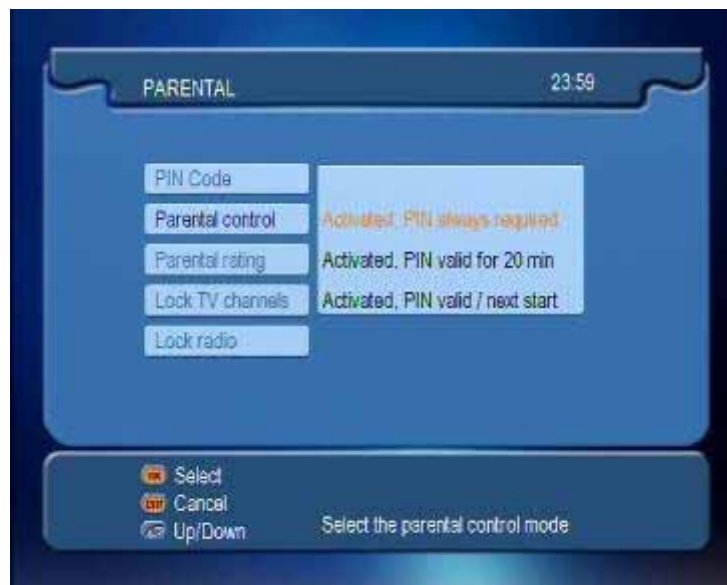
⇒ **PIN code** menu allows changing the PIN code. Select **Modify** to enter the Pin Code menu. Enter your new PIN-code next to the "**New PIN**" and the "**Confirm new Pin**" boxes. Select "**Accept**" to confirm your new PIN-code.



⇒ **Parental control** menu allows activation or deactivation of the parental control feature using the following parameters:

- Activate parental control, a PIN code is always necessary

- Activate parental control, the PIN code is valid for 20 minutes
- Activate parental control, the PIN code is valid until next stand by
- Deactivate parental control.



⇒ **Parental Rating** menu allows the following settings:

- Deactivate parental rating (OFF)
- Allow only programmes for children over 5 years old
- Allow only programmes for children over 10 years old
- Allow only programmes for children over 15 years old
- Allow only programmes for children over 18 years old



⇒ **Lock TV channels** menu allows the user to lock (prevent viewing) certain TV channels. A "lock" icon will appear next to the locked channels.



## 8 INSTALLATION

### 8.1 INSTALLATION OF THE DIGITAL TV ANTENNA

Before installing the Digital TV Antenna, please check that the premises in which you intend to use the Receiver has been upgraded with Digital Terrestrial TV receiving capability (*you may make relevant enquiries with your building management*). If the premises concerned does not have Digital Terrestrial TV receiving capability, you may try to install the Digital TV Antenna supplied with the Receiver. To do this, connect the Digital TV Antenna to the "ANT IN" input interface at the back panel of the Receiver. Position the Digital TV Antenna near your window. In the **MAIN MENU** screen, select **Installation** to display the **INSTALLATION** screen. In the **INSTALLATION** screen, select **Antenna Position**. In the **Antenna Position** menu, select **Tuner Power** and press the RIGHT button on the remote control unit. Press the UP/DOWN buttons to highlight the **ON** selection and press the OK button. Return to the **INSTALLATION** menu by pressing the LEFT button and then select **Auto search**.

### 8.2 BASIC INSTALLATION

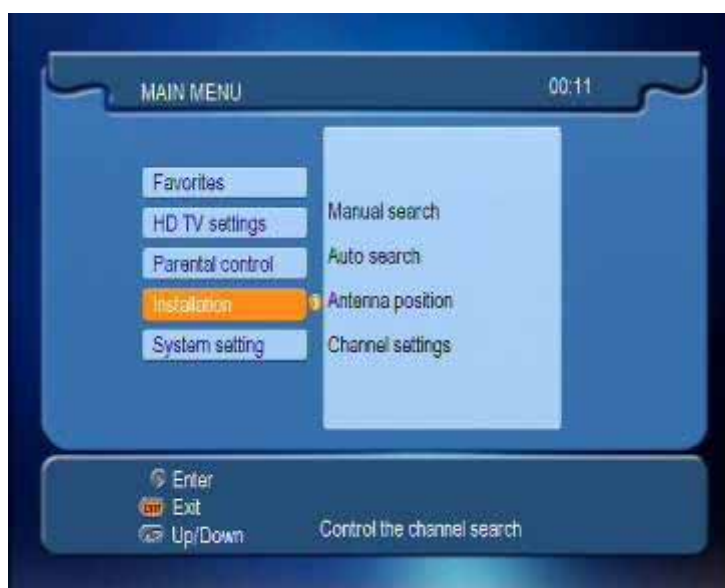
Press the MENU button on the remote control unit. Select **Installation** to enter the **INSTALLATION** menu. The following options are available:

- Manual Search
- Auto Search
- Antenna Position
- Channel Setting

Press the RIGHT button to enter a sub-menu. Select an option using the UP/DOWN buttons and then press OK button to confirm your selection. Press LEFT button to return to previous menu or the EXIT button to cancel your selection.

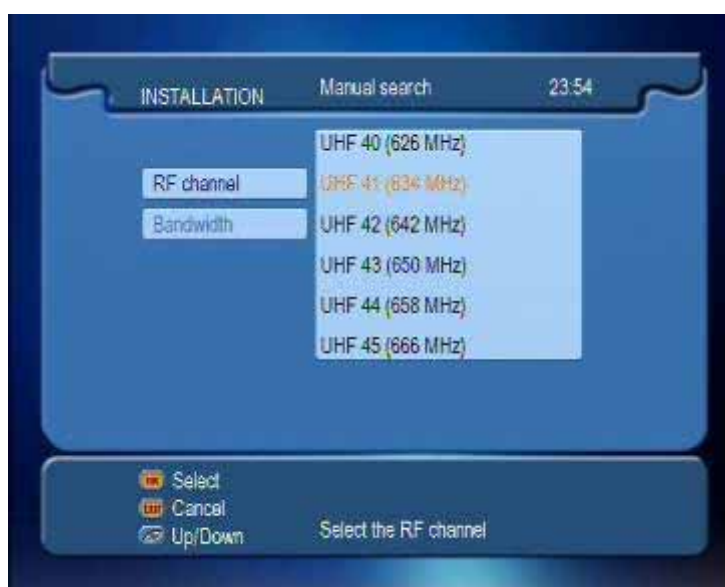


To enter **INSTALLATION** menu, press the MENU button on the remote control unit, then press DOWN button *three times* followed by the RIGHT button.



### 8.3 MANUAL SEARCH

This feature allows you to select a known TV broadcast frequency and search for all TV channels within this frequency. From the **INSTALLATION** screen, press the RIGHT button to enter to the **Manual Search** sub-menu. Press the UP/DOWN buttons or the PGUP/PGDW buttons to select desired frequency and press the OK button on the remote control unit to search for TV channels within this frequency.



### 8.4 AUTO SEARCH

This feature allows you to search for all available TV channels in the UHF band. From the **INSTALLATION** screen, select **Auto Search** using the UP/DOWN buttons and press the RIGHT button to enter to the **Auto Search** sub-menu. Press the RIGHT button to



perform the Auto Search function. The Receiver may take approximately 3 minutes to complete the Auto Search function and store the detected TV channels.

## 8.5 ANTENNA POSITION

This option allows the user to position the antenna in order to get an optimal signal. There are two features:

**Tuner Power:** From the **INSTALLATION** screen, select **Antenna position** using the UP/DOWN buttons and press the RIGHT button to enter to the **Antenna position** sub-menu. Select **Tuner Power** and press the RIGHT button on the remote control unit. To provide 5V power supply to the antenna, press the UP/DOWN buttons to highlight the **ON** selection and press the OK button. To turn off 5V power supply to the antenna, press the UP/DOWN buttons to highlight the **OFF** selection and press the OK button. Please note that the antenna must support this feature, otherwise, please turn off the 5V power supply feature.

**RF Channel:** This feature allows the user to select a known TV broadcast frequency in UHF band. From the **Antenna position** sub-menu, select **RF Channel** and press the RIGHT button on the remote control unit. Use the UP/DOWN buttons to select a known TV broadcast frequency. Validate your selection by pressing the OK button or LEFT button. Cancel your selection by pressing the EXIT button. When the selected frequency carries a DTT signal, the **Signal strength** and **Signal quality** bar-graphs will indicate if the antenna is well positioned. When the signal strength and quality reach an acceptable level, the names of the detected channels are displayed. The user may position the antenna until the **Signal strength** and **Signal quality** bar-graphs improve.



## 8.6 CHANNELS SETTINGS

This option allows the user to activate or deactivate TV and radio channels and select automatic or manual updates of TV channels when the Receiver is restarted. There are three features:





**TV channels:** This feature allows the user to activate or deactivate TV channels. Select **TV channels** and press the RIGHT button on the remote control unit. Use the UP/DOWN buttons or PGUP/PGDW buttons to select the desired channel (displayed in red). Press the OK button to activate or deactivate a channel. An activated channel is marked by a red “ ” mark next to its name. Validate your selection by pressing the LEFT button. Cancel your selection by pressing the EXIT button.



**Radio channels:** This feature allows the user to activate or deactivate radio channels. It operates in the same manner as the TV channels activation/deactivation function described in the previous paragraph.

**Update mode:** This feature allows the Receiver or the user decide what to do if new channels are detected. Select **Update mode** and press the RIGHT button on the remote control unit. Use the UP/DOWN buttons to select **Automatic** (the Receiver will automatically adds new detected channels) or **Manual** (the user decides to add new channels or not). Validate your selection by pressing the LEFT button. Cancel your selection by pressing the EXIT button.

## 9 SYSTEM SETTINGS

The Receiver can be customized with the following six settings:

- Language
- Timer
- Banner
- TV setting
- Product info
- Factory reset



To enter **System Settings** menu, press the MENU button on the remote control unit and press the DOWN to highlight **System settings**. Press the RIGHT button to enter the **System setting** sub-menu.



### 9.1 LANGUAGE

This sub-menu allows the user to set the language for the user interface, audio output and subtitles. Highlight **Language** in the System Setting sub-menu and press the RIGHT button on the remote control unit to enter the **Language** sub-menu.



**Menu:** This allows the user interface language to be changed. From the **Language** sub-menu, highlight **Menu** by pressing the UP/DOWN buttons and press the RIGHT button. A list of available languages (English and Chinese) will be displayed. Select the desired language with the UP/DOWN buttons. Confirm your selection by pressing the OK or LEFT buttons. Cancel your selection by pressing the EXIT button. The language change is immediate.



**Audio:** This allows the selection of the preferred audio language when a programme is broadcasted with several audio tracks. From the **Language** sub-menu, highlight **Audio** by pressing the UP/DOWN buttons and press the RIGHT button. A list of available audio languages (English and Chinese) will be displayed. Select the desired audio language with the UP/DOWN buttons. Confirm your selection by pressing the OK or LEFT buttons. Cancel your selection by pressing the EXIT button.



**Subtitles:** This allows the selection of the preferred language for subtitles. From the **Language** sub-menu, highlight **Subtitles** by pressing the UP/DOWN buttons and press the RIGHT button. A list of available subtitle languages (English and Chinese) will be displayed. Select the desired subtitle language with the UP/DOWN buttons. Confirm your selection by pressing the OK or LEFT buttons. Cancel your selection by pressing the EXIT button.



**Subtitle mode:** This allows the selection of various subtitles display modes:

- Always turn subtitles on
- Always turn subtitles off
- Display subtitles if the preferred audio is not being broadcasted
- Display subtitles for hearing impaired



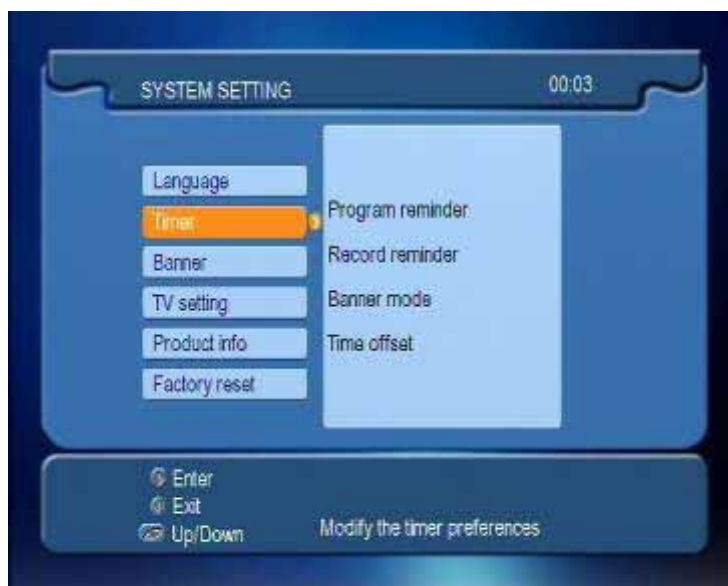
From the **Language** sub-menu, highlight **Subtitle mode** by pressing the UP/DOWN buttons and press the RIGHT button. Select the desired choice with the UP/DOWN buttons. Confirm your selection by pressing the OK or LEFT buttons. Cancel your selection by pressing the EXIT button.

## 9.2 TIMER



The **Timer** sub-menu allows the setting of timer preferences. Highlight **Timer** in the System Setting sub-menu and press the RIGHT button on the remote control unit to enter the **Timer** sub-menu. The following options are available under the **Timer** sub-menu:

- Program reminder
- Record reminder
- Banner mode
- Time offset



**Program reminder:** This allows you to set the time when the user is informed of the beginning of a TV programme. From the **Timer** sub-menu, highlight **Program reminder** by pressing the UP/DOWN buttons and press the RIGHT button. Select the desired choice (15 seconds before, 30 seconds before or 1 minute before) with the UP/DOWN buttons. Confirm your selection by pressing the OK or LEFT buttons. Cancel your selection by pressing the EXIT button.

**Record reminder (for use with our future recording products):** This allows you to set the time when the user is notified to record a TV programme. From the **Timer** sub-menu, highlight **Record reminder** by pressing the UP/DOWN buttons and press the RIGHT button. Select the desired choice (30 seconds before, 1 minute before or 2 minutes before) with the UP/DOWN buttons. Confirm your selection by pressing the OK or LEFT buttons. Cancel your selection by pressing the EXIT button.



**Banner mode:** This allows the inclusion of the information banner at the start of a program recording. From the **Timer** sub-menu, highlight **Banner mode** by pressing the UP/DOWN buttons and press the RIGHT button. Select the desired choice with the UP/DOWN buttons. Confirm your selection by pressing the OK or LEFT buttons. Cancel your selection by pressing the EXIT button.

**Time offset:** This shows the difference between the Greenwich Meridian Time (GMT) and the local time. This value cannot be changed and will display **GMT+8** for Hong Kong.



### 9.3 BANNER



The **Banner** sub-menu allows the appearance of the information banner to be changed. Highlight **Banner** in the System Setting sub-menu and press the RIGHT button on the remote control unit to enter the **Banner** sub-menu. The following options are available under the **Banner** sub-menu:

- Display duration
- Transparency

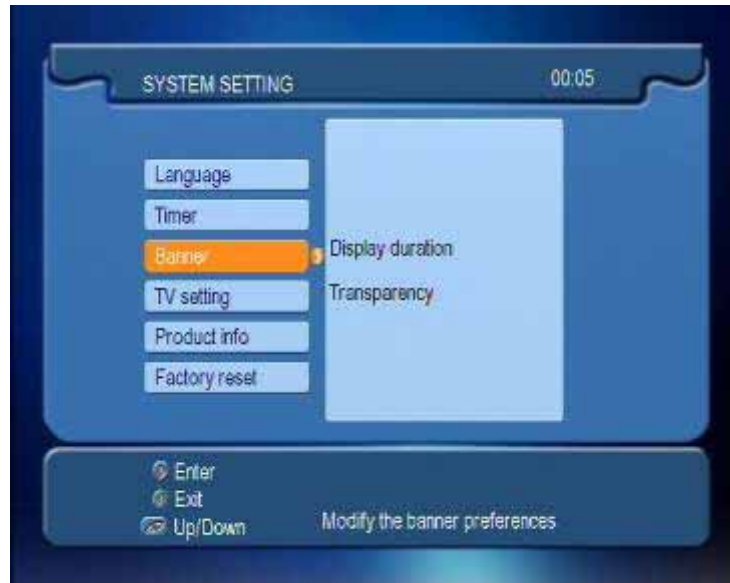


**Display duration:** This allows adjusting the duration of the information banner display when the user changes a TV channel. From the **Banner** sub-menu, highlight **Display duration** with the UP/DOWN buttons and press the RIGHT button. Select the desired display duration (10 seconds, 5 seconds or 3 seconds) with the UP/DOWN buttons. Confirm your selection by pressing the OK or LEFT buttons. Cancel your selection by pressing the EXIT button. Default setting is 10 seconds.



**Transparency** allows changing the background appearance of the information banner. It can be set to semi-transparent or opaque. From the **Banner** sub-menu, highlight **Transparency** with the UP/DOWN buttons and press the RIGHT button. Select the desired appearance with the UP/DOWN buttons. Confirm your selection by pressing the OK or LEFT buttons. Cancel your selection by pressing the EXIT button.





## 9.4 TV SETTING



The **TV Setting** sub-menu allows the user to select an appropriate video and audio output signals to your television set. Highlight **TV Setting** in the System Setting sub-menu and press the RIGHT button on the remote control unit to enter the **TV Setting** sub-menu. The following options are available under the **TV Setting** sub-menu:

- Video output
- TV audio mode
- Digital Audio
- Default Volume



**Video output:** This allows selecting PAL or NTSC TV video output format. From the **TV Setting** sub-menu, highlight **Video output** with the UP/DOWN buttons and press the RIGHT button. Select the desired video output (PAL or NTSC) with the UP/DOWN buttons.



Confirm your selection by pressing the OK or LEFT buttons. Cancel your selection by pressing the EXIT button. Default setting is PAL

**Audio mode:** This allows selecting mono or stereo audio output from the Receiver to your TV set. From the **TV setting** sub-menu, highlight **Audio mode** with the UP/DOWN buttons and press the RIGHT button. Select the desired audio mode (Mono Left, Mono Right or Stereo) with the UP/DOWN buttons. Confirm your selection by pressing the OK or LEFT buttons. Cancel your selection by pressing the EXIT button. Default setting is STEREO.



**Digital Audio:** This allows setting the HDMI, Coaxial and Optical digital audio output by PCM or AC3 format.



If you selected 'AC3' output, all digital output switches to AC3 includes HDMI. Unless your TV set or A/V amplifier is supporting HDMI output with AC3, otherwise it causes no sound.

**Default volume:** This allows setting the audio output volume when the Receiver is switched on. From the **TV Setting** sub-menu, highlight **Default volume** with the UP/DOWN buttons and press the RIGHT button. Select the desired default volume with the UP/DOWN buttons. The default audio volume is indicated by the bar-graph. Confirm your selection by pressing the OK or LEFT buttons. Cancel your selection by pressing the EXIT button.



## 9.5 PRODUCT INFORMATION



The **Product information** page allows the user to obtain information concerning the current software and hardware version of the Receiver and to set its behaviour in the event a new firmware/software for the Receiver is detected. Highlight **Product info** in the System Setting sub-menu and press the RIGHT button on the remote control unit to enter the **Product information** page. The following information is displayed:

- Product Name
- Product ID
- Hardware Version
- Current software version
- New software detection

### Firmware/Software Upgrade (Update Mode)

This feature allows automatic or manual update of the software in the Receiver. In the **Product information** page, highlight **Update Mode** with the UP/DOWN buttons and press the RIGHT button. Select the desired software update mode with the UP/DOWN buttons. Confirm your selection by pressing the OK or LEFT buttons. Cancel your selection by pressing the EXIT button.

## 9.6 FACTORY RESET



This function allows the user to return the Receiver to factory default settings. From the **System setting** sub-menu, highlight **Factory reset** with the UP/DOWN buttons and enter the system PIN-code and the reset process will start automatically. The default PIN-code is 0000. Please note that after resetting the Receiver, all previously stored TV

channels will be lost. The Receiver may take approximately 30 seconds to finish the factory reset process.



## 10 SOFTWARE/FIRMWARE UPGRADE

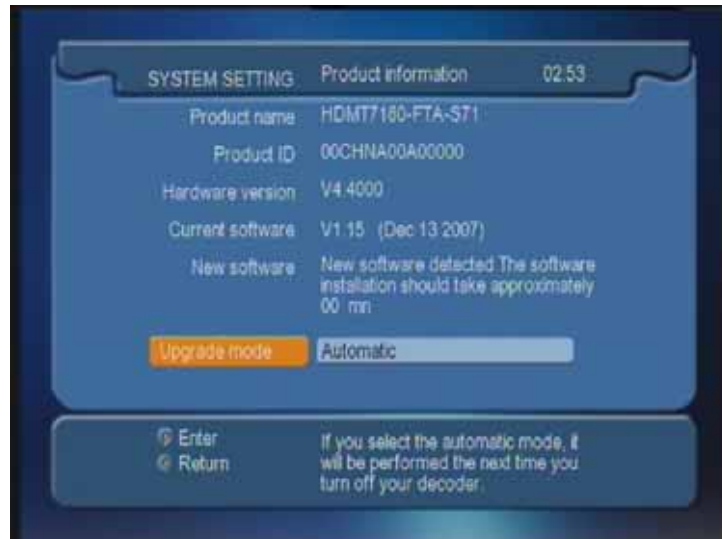
### 10.1 USB INTERFACE SOFTWARE UPGRADE

1. Please go to <http://www.dch-ead.com>, then click <download> or contact our customer service to get the latest software for updating the Receiver.
2. Obtain the latest version of the software for your Receiver and store it in the root directory of your USB Flash Drive. Check that the name of the folder containing the latest software in your USB Flash Drive is **AS\_HK\_DMB\_UPDATE**. Please ensure that the folder name **AS\_HK\_DMB\_UPDATE** is stored on the root directory of your USB Flash Drive. Otherwise, the Receiver cannot be upgraded with the latest software.
3. Power off the set top box and insert your USB Flash Drive in the USB interface at the back panel of the Receiver. Power on the Receiver and when it shows "boot" then press any button (except standby on the front panel of the Receiver) to start the software upgrade process.
4. The software update process may take approximately 1 minute to complete. The Receiver will restart automatically after the software upgrade process has been completed. Please do not power off the Receiver or remove the USB Flash Drive from the Receiver during the software upgrade process. Otherwise, the Receiver may be damaged.
5. Please contact our customer service to obtain further information on the USB software upgrade function.

**Warning:** The USB interface is for software upgrade of the Receiver only using a USB Flash Drive with FAT32 file system format. Never connect a portable hard disk to the USB interface of the Receiver. It dose not support "U3" embedded USB flash drive.

## 10.2 OVER THE AIR SOFTWARE UPGRADE

This function is only available when the TV broadcast station provides over the air software upgrade services.



The user can select either automatic or manual over the air software upgrade. We recommend using automatic software upgrade.

When the Receiver detects broadcast signals embedded with an appropriate software, it will automatically start the software upgrade process. This process will take approximately 3 minutes and the Receiver will reboot after the software of the Receiver has been upgraded successfully. During this software upgrade process, please do not switch off the Receiver or use other functions of the Receiver.

# 11 SPECIFICATION

## HD-B500

<b>Demodulation Chipset</b>	LS8913-A1
<b>Modulation</b>	Support QPSK(4QAM)、16QAM、64QAM
<b>Input Frequency</b>	130 — 858MHZ
<b>Video Chipset</b>	STI7100
<b>Video Deocding</b>	MPEG4-Part 10 (H.264)及 MPEG-2
<b>Video Format</b>	Display : 4 : 3/16 : 9
<b>Audio Decoding</b>	Audio Channels: Mono or Stereo or Downmix
<b>Audio Format</b>	Support MPEG1/MPEG2/AC3
<b>Video Output</b>	CVBS x 2, S-Video x 1, Component x 1, HDMI x 1 Video format : 576P, 480P, 720P, 1080i
<b>Audio Output</b>	Analog Audio Output: Mono/Stereo/L,R Digital Audio Output: Optical/Coaxial (SPDIF)
<b>Middleware</b>	Upgradeable to MHEG5
<b>OSD</b>	Support Traditional Chinese (HK Version) and English
<b>Ethernet Port</b>	Upgradeable to support interactive
<b>USB Interface</b>	Support firmware upgrade
<b>RS-232Interface</b>	Support firmware upgrade
<b>Over-The-Air</b>	Support Over-The-Air firmware upgrade
<b>Flash</b>	8MB
<b>RAM</b>	DDR2 128MB
<b>Input Power</b>	AC 100-240V ~ 50/60 Hz
<b>Accessories</b>	Flat Panel Antenna, Remote Control, two AAA size batteries, User Manual, Power Cord and AV cable

# TEAC

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This appliance has a serial number located on the rear panel. Please record the model number and serial number and retain them for your records.

Model number	Serial number
HD-B500	